

# IMO Guidelines for the carriage of energy-rich fuels and their blends

The Marine Environment Protection Committee approved the Guidelines for the carriage of energy-rich fuels and their blends, which are set out in MEPC.1/Circ.879.

Notice to: Ship Owners/ Managers/ Operators | Surveyors/Auditors

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The Marine Environment Protection Committee, at its seventy-third session (22 to 26 October 2018), recognizing the need to clarify how energy-rich fuels or their blends with petroleum oils subject to Annex I of MARPOL and/or with biofuels subject to Annex II of MARPOL can be shipped in bulk under the correct annex of MARPOL, approved the *Guidelines for the carriage of energy-rich fuels and their blends*, which are set out in [MEPC.1/Circ.879](#).

The Guidelines apply to ships when carrying energy-rich fuels or their blends with petroleum oils and/or biofuels subject to Annex I and Annex II of MARPOL to ensure these products are shipped under the correct Annex of MARPOL.

The Guidelines have been developed to clarify how energy-rich fuels are shipped under the correct Annex of MARPOL.

Energy-rich fuels are identified by the PPR Working Group on the Evaluation of Safety and Pollution Hazards of Chemicals (ESPH), based on an appropriate proposal, as products falling under the scope of the Guidelines. Energy-rich fuels will be recorded in annex 12 of the MEPC.2/Circular on Provisional categorization of liquid substances in accordance with MARPOL Annex II and the IBC Code. Energy-rich fuels are wholly or partly derived from non-petroleum feedstock and they can be produced either without blending as such or by blending with petroleum products.

## Description of Energy-Rich Fuels

An energy-rich fuel is obtained from biological origin or non-petroleum sources (e.g. algae, vegetable oils) or is a blend of petroleum-based fuel and a product obtained from biological origin or non-petroleum sources (e.g. algae, Gas-to-Liquid (GTL) process, Hydrotreated Vegetable Oil (HVO), co-processing).

An energy-rich fuel is comprised only of constituents that can be expressed as individual chemicals of the hydrocarbon family, for example alkanes with straight or branched chain and cycloalkanes, etc.

An energy-rich fuel is a complex mixture that is characterized as UVCB,<sup>1</sup> is formed of a relatively large amount of constituents, cannot be represented by a simple chemical structure and has a composition that may vary from batch to batch.

## Carriage of Energy-Rich Fuels

- When carrying energy-rich fuels listed in annex 12 of the MEPC.2/Circular, the requirements of Annex I of MARPOL should apply.
- When carrying energy-rich fuels, the Oil Discharge Monitoring Equipment (ODME) shall be in compliance with regulation 31 of Annex I of MARPOL.

## Carriage of Blends of Energy-Rich Fuels and Biofuels

The carriage provision for blends of biofuels that are recorded in annex 11 of the MEPC.2/Circular is based on the volumetric composition of the blends as follows:

### 1. Biofuel blends containing 75% or more of energy-rich fuel

- When containing 75% or more of energy-rich fuel, the blend is subject to Annex I of MARPOL.
- When carrying such biofuel blends, ODME shall be in compliance with regulation 31 of Annex I of MARPOL and should be approved for the mixture being transported.
- When considering the deck fire-fighting system requirements of SOLAS chapter II-2, regulations 1.6.1 and 1.6.2, when

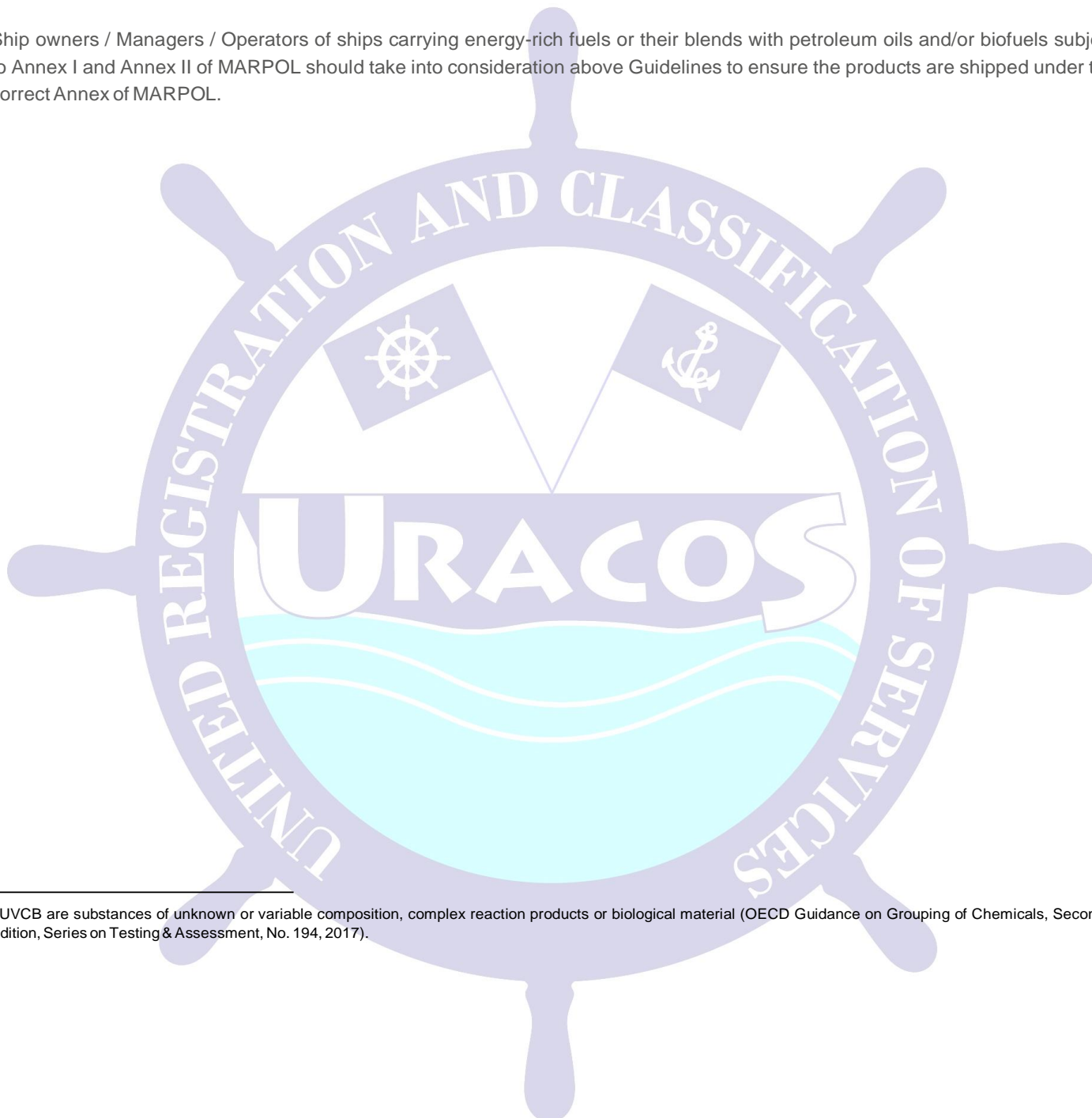
carrying biofuel blends containing ethyl alcohol, then alcohol resistant foams should be used.

**2. Biofuel blends containing less than 75% of energy-rich fuel**

- When containing less than 75% of energy-rich fuel, the biofuel blends are subject to Annex II of MARPOL.
- With respect to biofuels identified as falling under the scope of the Guidelines, carriage requirements for specific biofuel/energy-rich fuel blends to be shipped as MARPOL Annex II cargoes will be incorporated into list 1 of the MEPC.2/Circular, as appropriate.

**Act now**

Ship owners / Managers / Operators of ships carrying energy-rich fuels or their blends with petroleum oils and/or biofuels subject to Annex I and Annex II of MARPOL should take into consideration above Guidelines to ensure the products are shipped under the correct Annex of MARPOL.



<sup>1</sup> UVCB are substances of unknown or variable composition, complex reaction products or biological material (OECD Guidance on Grouping of Chemicals, Second Edition, Series on Testing & Assessment, No. 194, 2017).